ABSTRACT OF DISCLOSURE

A method and apparatus is disclosed for mechanically-assisted liposuction treatment. The apparatus includes a hand-holdable housing, an electro-cauterizing cannula assembly, and a reciprocation mechanism. The hand-holdable housing has a cavity adaptable for receipt of a portion of the electro-cauterizing cannula assembly. The electro-cauterizing cannula assembly includes an inner cannula and an outer cannula, each having a distal end and a proximal end and at least one aspiration aperture about the distal end. The inner cannula is disposed within the outer cannula and the inner and outer aspiration apertures are in at least partial registration to form an effective aspiration aperture. The reciprocation mechanism is disposed within the housing and is operably associated with either the inner or outer cannula so that one of the cannulas can be selectively caused to reciprocate relative to the housing while the other is stationarily disposed relative to the housing. As one of the cannulas is caused to reciprocate relative to the other the effective aspiration aperture formed through the distal end of the cannula assembly, is caused to undergo periodic displacement. During aspiration of tissue, high-voltage RF power signals are supplied to the inner and outer cannulas to effect hemostasis about the reciprocating aspiration aperture. Such hemostasis is achieved by causing protein molecules within aspirated tissue to coagulate in response to the high-voltage RF signals being supplied across the reciprocating cannulas. In the preferred embodiments, the amount and rate of such aspiration aperture displacement is controllably adjustable. The cannula assembly is releasably detachable from the hand-holdable housing to facilitate cleaning and sterilization of the cannula assembly and the housing.